

Red Pitaya d.o.o.
Velika pot 22
5250 Solkan
Slovenia

www.redpitaya.com

Electrical schematics for:

product: STEMLab_125-14

version: V1.1

variant: STEMLab 125-14 Z7020 LN

release date: 13. 9. 2021



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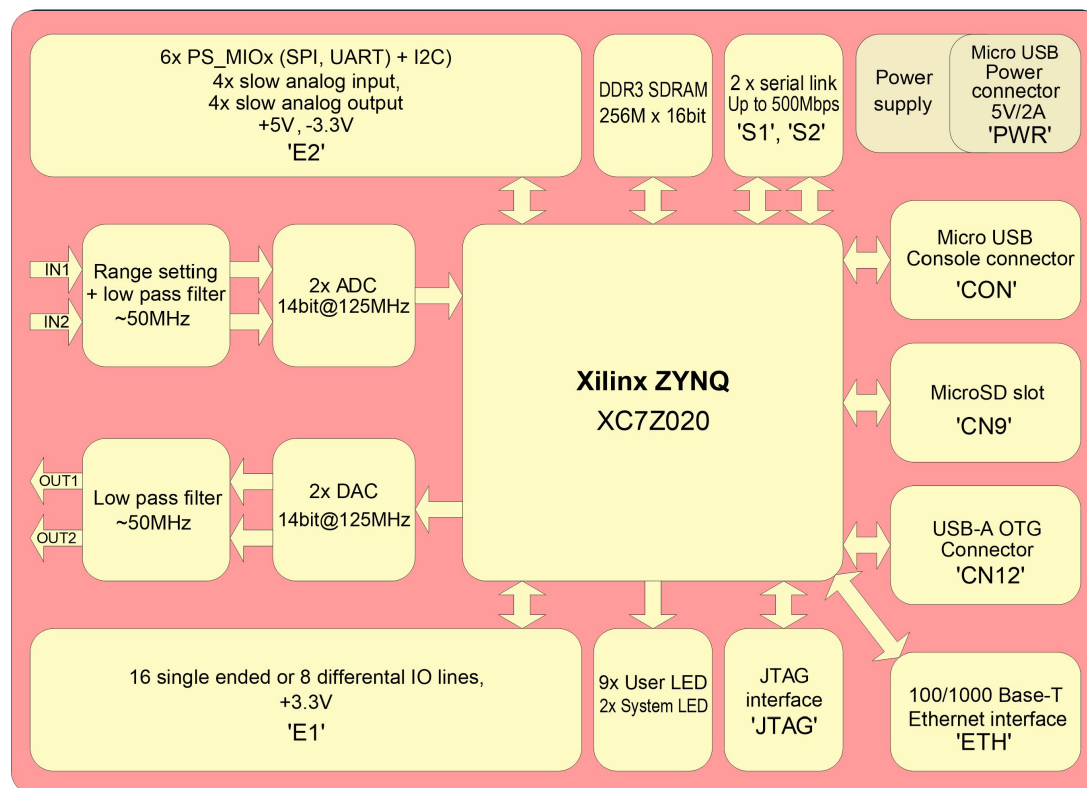
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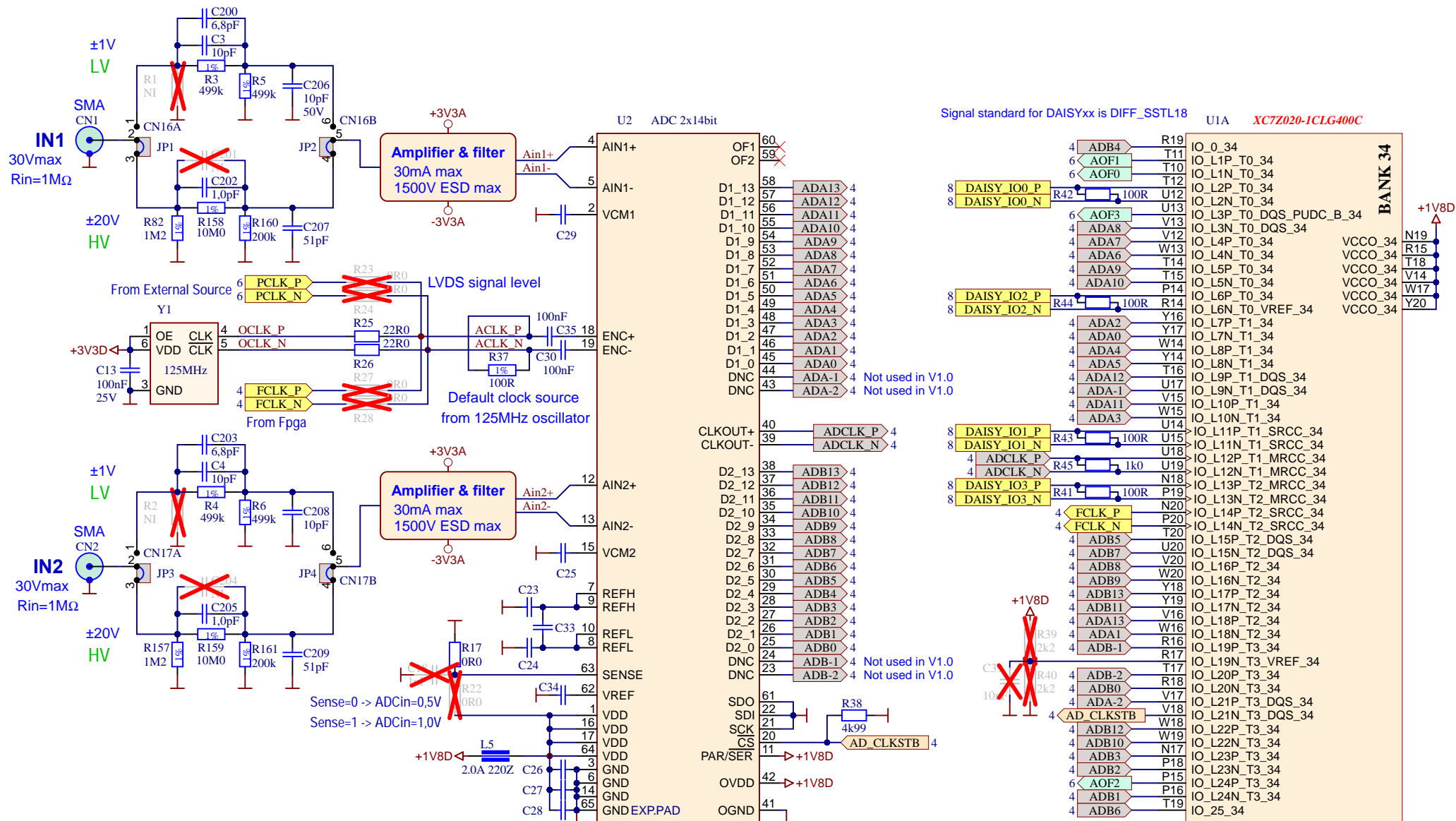
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Red Pitaya STEMLab 125-14 V1.1 block schematics



2 Analog front-end and AD converter, Zynq bank 34

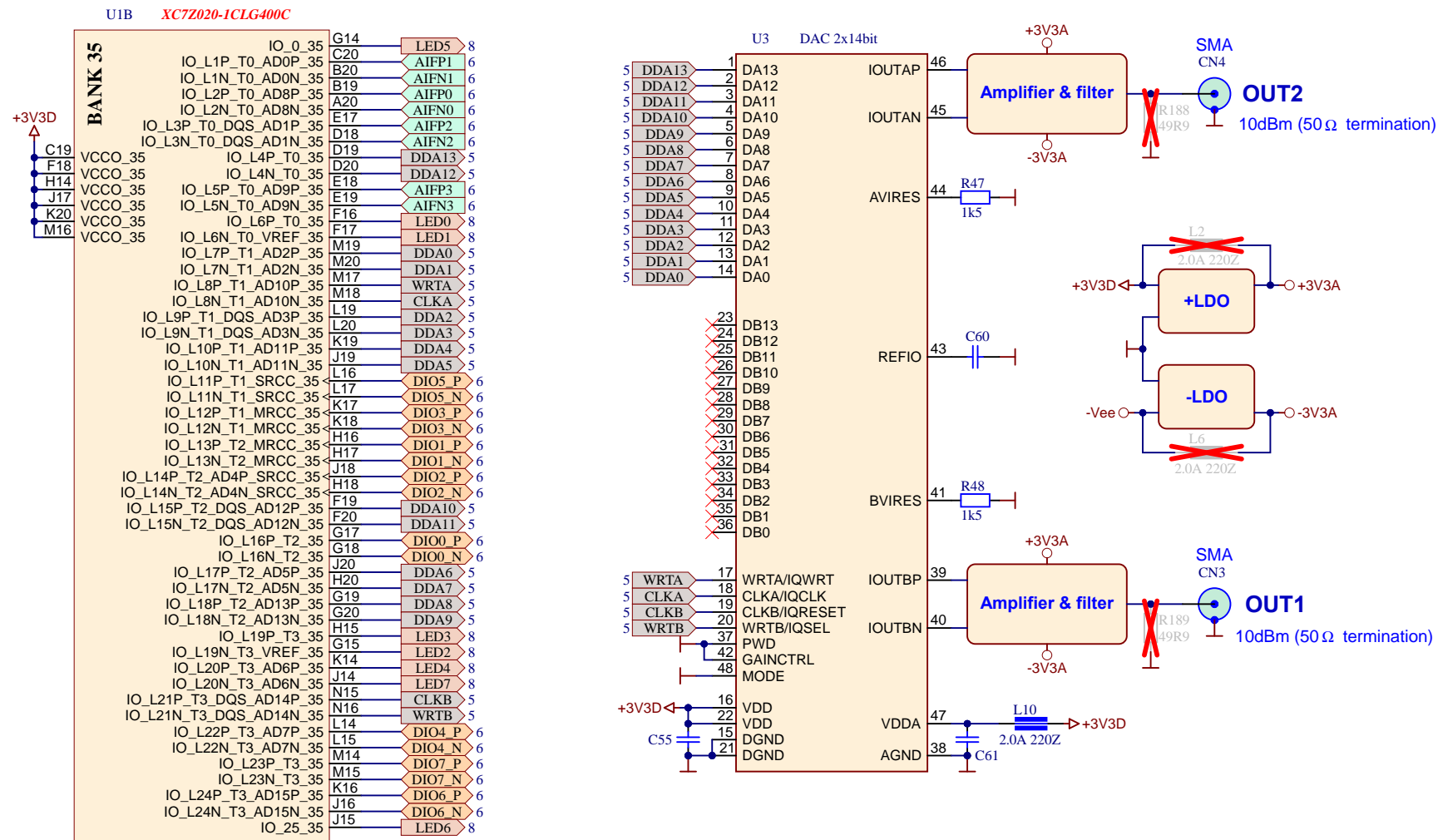


Note: number next to port symbol indicates the sheet where the signal is connected

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3 DA converter and analog back-end, Zynq bank 35

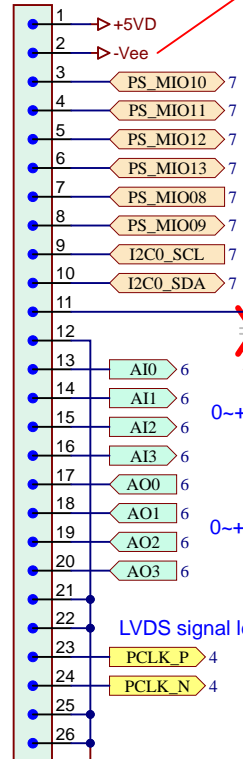


4 Digital and analog slow I/O, Zynq bank 13

PS_MIO08 is output only and at power-up must be low level (no external pull-ups)!

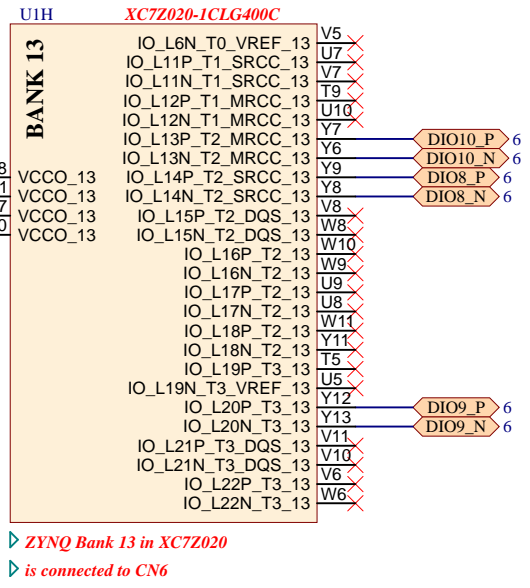
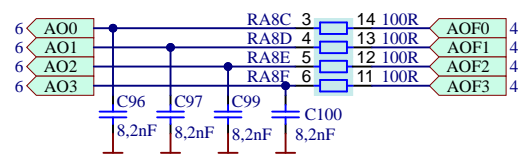
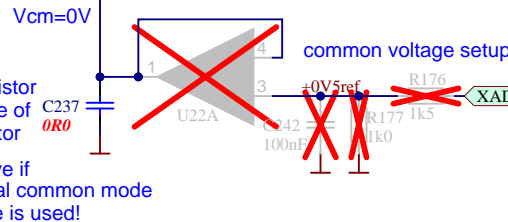
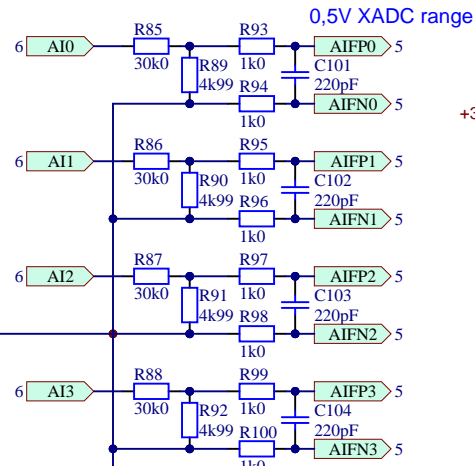
Negative supply voltage Vee can be -3,3V or -4,2V depends on version!

E2
CN5



IDC 2.54mm 26 pin low profile

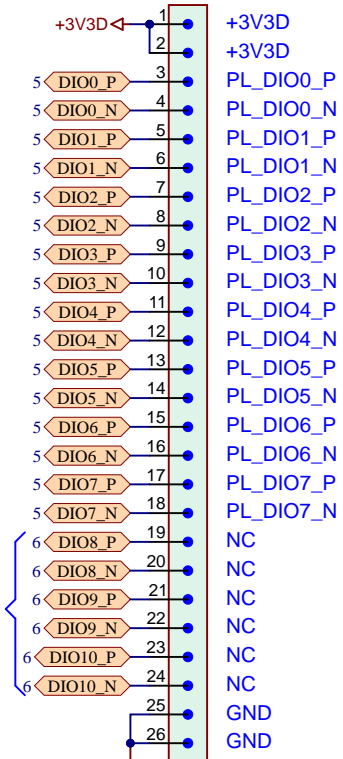
(alternative ZYNQ function)
3,3V logic levels



▶ ZYNQ Bank 13 in XC7Z020
▶ is connected to CN6
▶ Connected to XC7Z020

16 single ended or
8 differential digital I/O
with 3,3V logic levels

E1
CN6

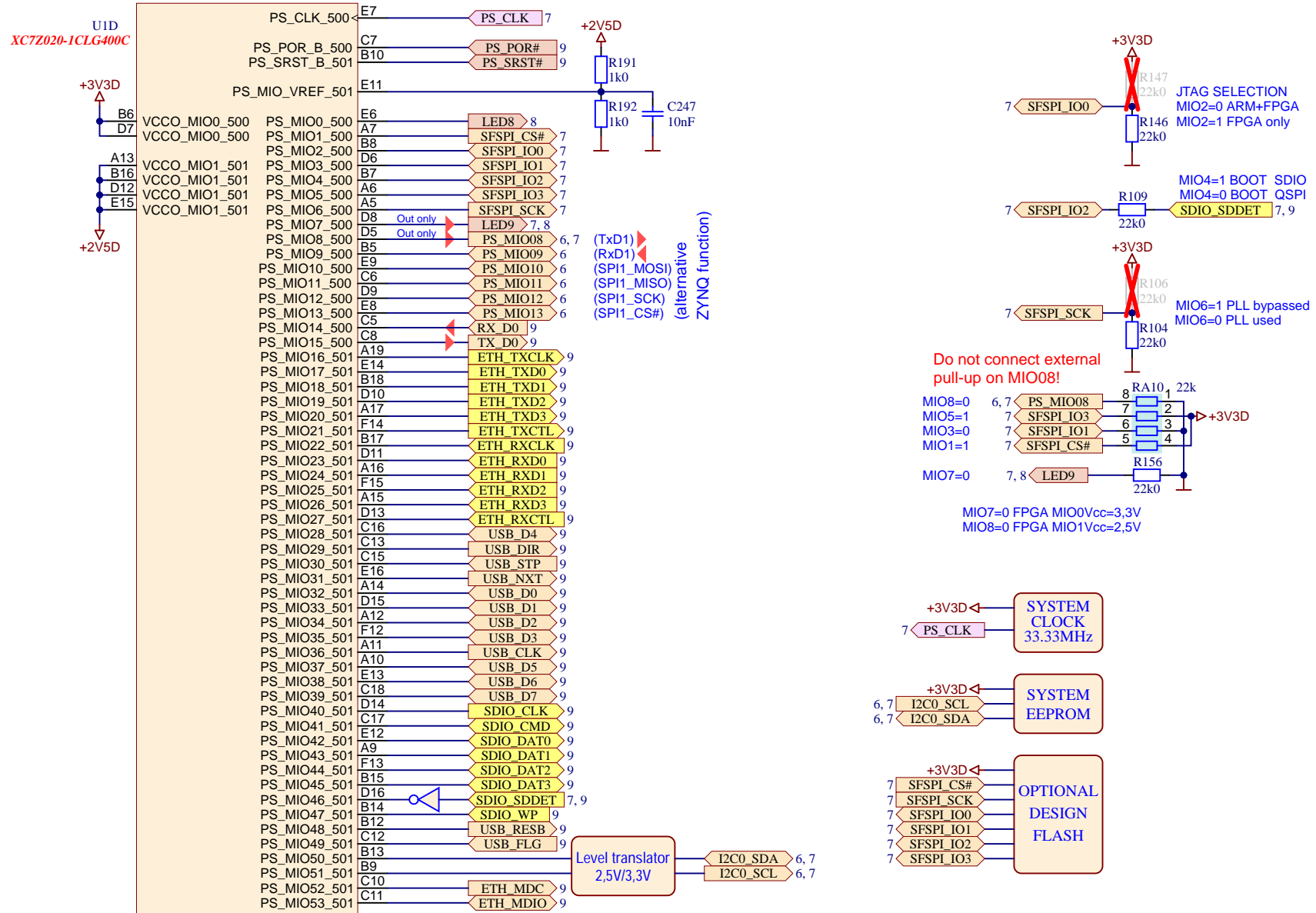


IDC 2.54mm 26 pin low profile

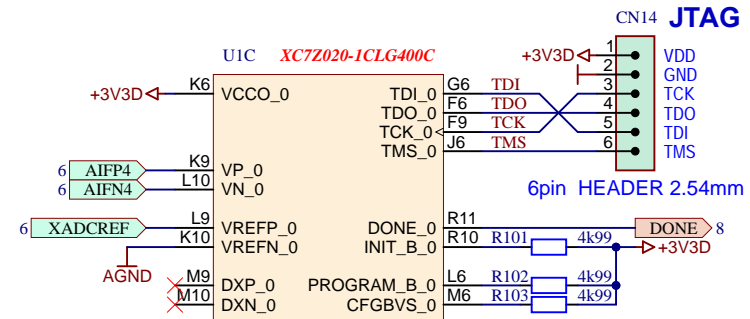
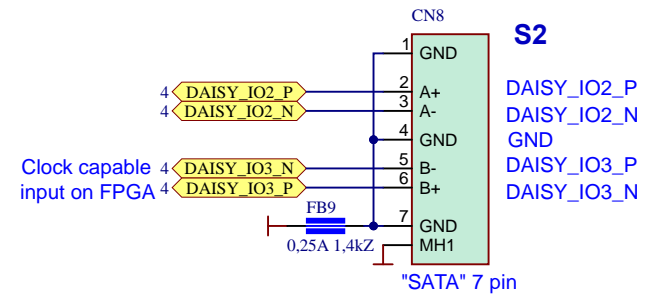
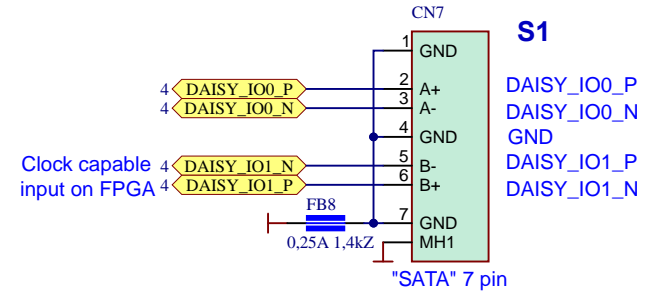
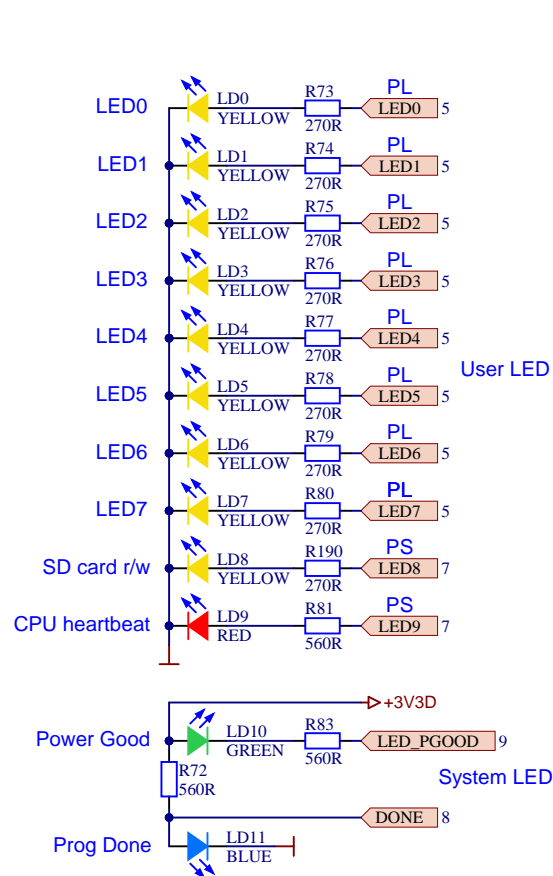
Note: number next to port symbol indicates the sheet where the signal is connected

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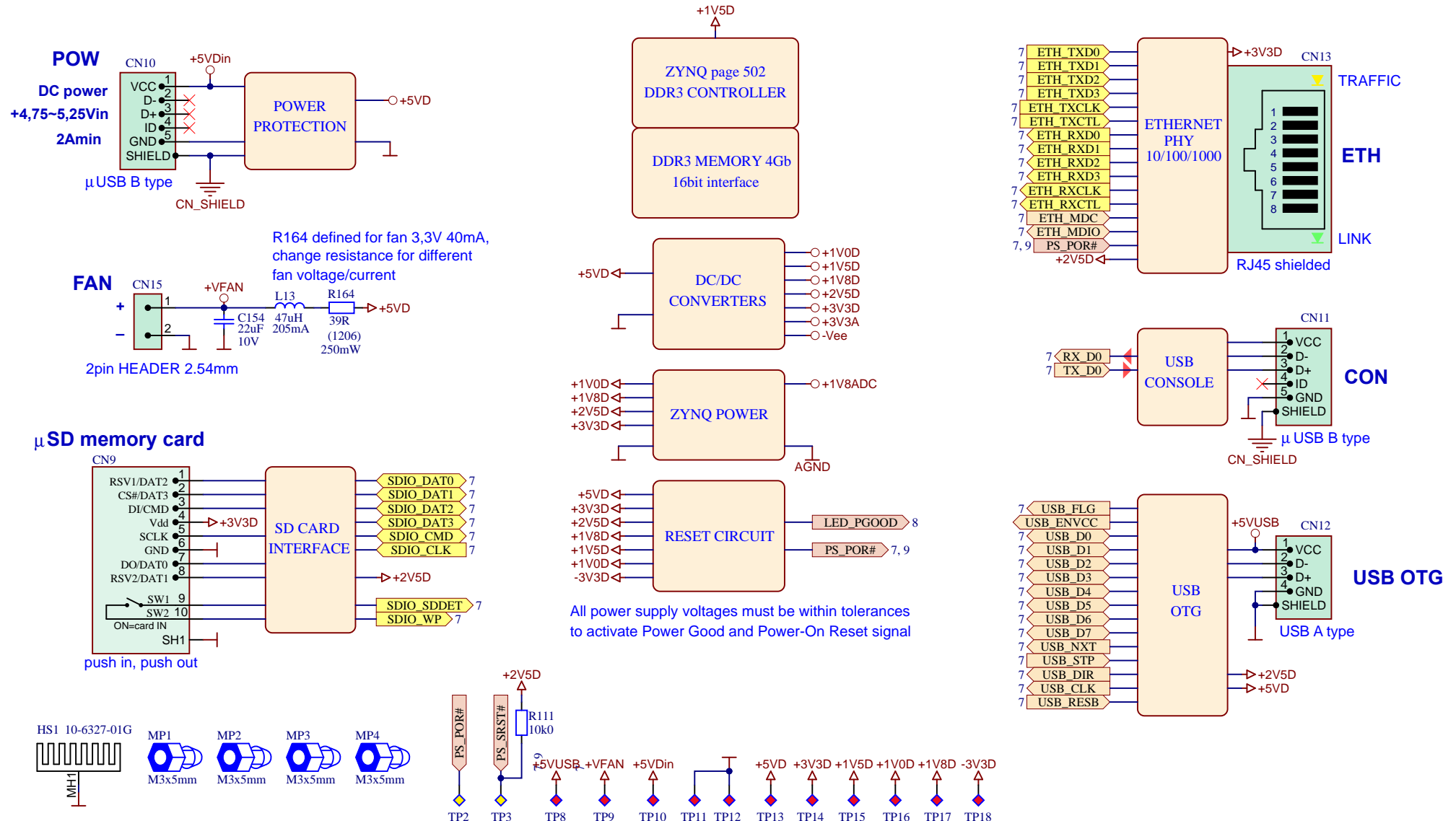
5 Zynq bank 500 and 501 (PS)



6 LED, Serial interface, JTAG



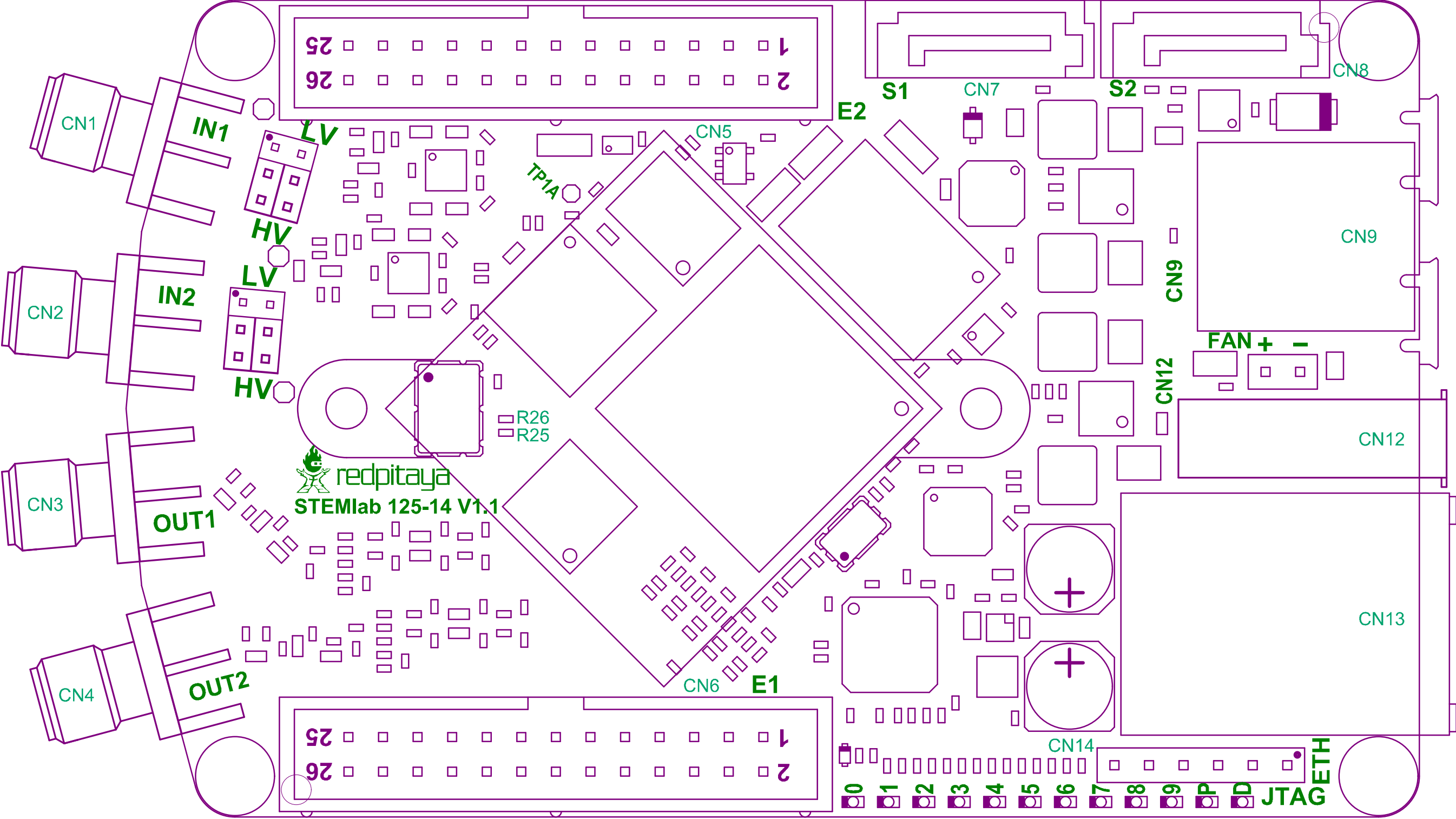
7 Ethernet, memory card, Console, USB OTG, DDR3, Power



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Top assembly: STEMLab_125-14_V1.1 variant: STEMLab 125-14 Z7020 LN



SD card r/w LED
CPU HEARTBEAT LED
POWER LED
PROG DONE LED

Bottom assembly: STEMLab_125-14_V1.1 variant: STEMLab 125-14 Z7020 LN

